

**AMENDMENTS TO THE SPECIFICATION**

**IN THE SPECIFICATION:**

**Amend page 3, line 17 as follows:**

A1 To test BER for the WDM optical communication system, the optical communication channel BER test is repeated for each optical communication channel  $i$ , in the optical communication system, where  $i \in (1, N)$ . If the measured BER for each of the optical communication channels is less the specified BER value, then the optical system meets its BER requirements and passes the BER test. If one or more of the optical communication channels has a measured BER which is greater than the specified BER value, then corrective measures are required, including troubleshooting and repairing the optical transmitter/receiver pair 120/130 for the optical communication channels which failed the BER test.

**Amend page 13, line 11 as follows:**

A2 Referring to Figure 2, the internal performance monitors 300 are configured on each optical receiver 130. Further internal performance monitors 260 are configured on each optical transmitter 120. The internal performance monitors 260 operate similar to the internal performance monitors 300, except for converting an electrical signal into an optical signal. The internal performance

A2  
monitors 260 and 300 ~~is~~ are actually employed in the system everywhere a signal goes from being optical to electrical back to being optical, i.e., the performance monitor is included to check the electrical signal. In a preferred embodiment of the system, this results in the internal performance monitors 260 and 300 actually being employed in two places for each channel in the system. As can be seen in Figure 2, each input signal is tested by the internal performance monitors 260 and 300. ~~, as well as each cascade jumper between paths.~~

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**Amend page 13, line 15 as follows:**

For a simple example, assume there are only two channels. The performance monitors 260 and 300 receive the following inputs:

A3  
Input to Tx1 in optical communication network element 112  
Input to Rx1 in optical communication network element 110  
Input to Tx1 in optical communication network element 110  
Input to Rx1 in optical communication network element 112  
Input to Tx2 in optical communication network element 112  
Input to Rx2 in optical communication network element 110  
Input to Tx2 in optical communication network element 110  
Input to Rx2 in optical communication network element 112

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